



PATIENT

Roxy Aoude

SPECIES

Canine

BREED

Pomeranian

SEX

Spayed Female

AGE

11 years, 9 mos

WEIGHT

15.4 lbs

INTERPRETED BY

Andrea Nicastro, DVM,
Diplomate ACVIM
(Small Animal Internal
Medicine)

IMAGING PERFORMED BY

Amy Mayhew LVT

HOSPITAL NAME

SVS Imaging MI

REFERRING VET

Wixom Family Pet
Practice

INVOICE

11181

DATE

6.29.22

PRESENTING CLINICAL SIGNS

History: Current Medications: Galliprant 10mg PO SID Denamarin 90mg PO SID Potassium Bromide 375mg PO SID Assisi loop therapy BID on spine Patient History: Epilepsy (no seizures in years); chronic hepatopathy (had previous AUS done 12//2021-diffuse parenchymal changes to liver, concern for developing mucocele, cytology of liver revealed marked vacuolar hepatopathy); past few months has developed spinal myelopathy along with behavior changes, pants excessively

Abnormal PE/Chem/CBC/UA Results: Abnormal Examination Findings: Ataxic in rear legs, moderately slow CP's LR and RR, decreased patellar reflex RR, RR crosses medially when she is walking, really just wants to lay in owners lap; mild tartar/gingivitis; unable to hear heart well due to panting; cranial abdomen is slightly distended, can feel edges of liver; left stifle slightly thickened with mild decrease ROM, LR missing 3rd digit, prev amputated, stands with toes slightly medial and crosses over in the rear (owner said she's done that since the amputation), mild decrease ROM on extension of bilateral hips BW from 5.24.2022: ALT 970 (0-120 u/l), ALP >993 (0-140 u/l), AST 316 (0-60 u/l),GGT 47 (0-14u/l); lipase 647(0-225 u/l), T4 0.89 (1.2- 4.3 ug/dl) Chest rads: overall mild diffuse bronchointerstitial pattern, heart appeared rounded on the V/D. **BP 139/121 (127) **Please see chest rads for cardiac review.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 1-2 cm, are normal.

The **left kidney** is normal size (4.92 cm in length); with normal shape and smooth peripheral contours. The cortex is thickened and hyperechoic. There is moderate loss of corticomedullary distinction. A few mineralized foci are observed within the cortex. A 1.01 cm cortical cyst is seen at the cranial pole. Mild pyelectasia is present (0.30 cm in the transverse plane). There is no evidence of infarcts or hydroureter.

The **right kidney** is normal size (4.79 cm in length); with a slightly irregular shape. The cortex is mildly thickened and hyperechoic. There is moderate loss of corticomedullary distinction. At least one mineralized focus is observed within the cortex. There is no evidence of pyelectasia or hydroureter.

Adrenal Glands

The **left adrenal gland** is mildly enlarged (0.62 cm at cranial pole) (0.60 cm at caudal pole) (1.86 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The **right adrenal gland** is mildly enlarged (1.02 cm at cranial pole) (0.72 cm at caudal pole) (2.15 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The **spleen** is subjectively normal in size (1.34 cm in width at the level of the hilus) with slightly irregular contours at the cranial pole. There is appropriate echogenicity and echotexture. Pinpoint hyperechoic foci are observed throughout the organ. In addition, a 0.47 cm ill-defined, hyperechoic nodule/area is observed at the caudolateral aspect. Splenic vasculature is normal.

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Liver

The **liver** is subjectively enlarged with irregular peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely mottled and heterogenous, bordering on nodular in appearance. No distinct focal lesions are observed. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

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The **gall bladder** lumen is moderately distended. The wall is thin and smooth. A moderate amount of aggregated, echogenic suspended sludge in a partially stellate pattern is observed within the lumen. There is questionable mild dilation of the proximal cystic duct. The cystic and common bile ducts are normal/not seen.

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Gastrointestinal

The **gastric lumen** is distended with ingesta and irregular shadowing material. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not overtly dilated. The small intestinal wall is normal in thickness with a normal layering pattern. There is evidence of mucosal striations in several segments. Discreet masses are not identified. The colonic wall is normal. The colonic lumen contains formed fecal material. There is no obvious evidence of an obstructive pattern.

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Pancreas

The right limb of the **pancreas** is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

WEIGHT

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Free Abdomen

Trace free fluid is observed. The mesentery in the midabdominal region is hyperechoic. There is no evidence of inflammation or effusion. A 0.76 cm gastric **lymph node** is visualized.

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ULTRASONOGRAPHIC FINDINGS**Primary Findings**

- Nonspecific diffuse hepatopathy (changes are similar to the previous sonogram). Differentials include inflammatory disease, infiltrative neoplasia, fibrosis, other hepatopathy.
- Gall bladder changes consistent with a developing mucocele (changes are similar to the previous sonogram).
- The small intestinal wall changes are suggestive of lymphangiectasia or an inflammatory hepatopathy. Correlation with the patient's clinical history is recommended.

Secondary Findings

- The bilateral renal changes are consistent with chronic interstitial nephrosis/nephritis with nonobstructive nephrocalcinosis and left pyelectasia.

- Mild bilateral adrenomegaly

- Dystrophic mineralization of the spleen. This finding is typically seen with endocrinopathies and is considered incidental. The small hyperechoic splenic nodule trends toward the benign (i.e., myelolipoma) with a low possibility of emerging neoplasia.

- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

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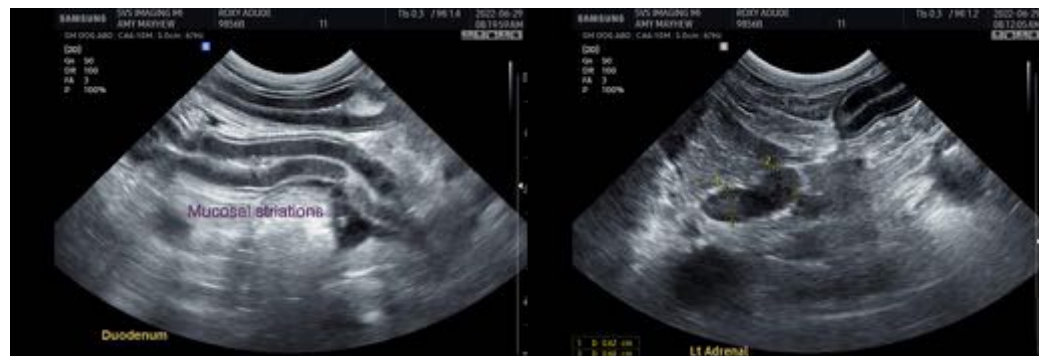
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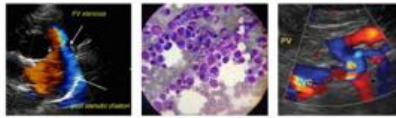
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- The shadowing material within the gastric lumen may represent foreign bodies or normal ingesta. The material appears nonobstructive at this time.
- The prominent gastric lymph node is likely reactive.
- Diffuse peritonitis likely secondary to hepatic and/or intestinal pathology

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Consider pre-and postprandial serum bile acids to assess hepatic function.
- Regarding the hepatic changes, to get a definitive diagnosis, surgical biopsies along with aerobic and anaerobic bile cultures and copper quantitation should be considered.
- Given the behavior changes and excessive panting, consider a baseline blood pressure measurement to evaluate for systemic hypertension.
- Consider testing for hyperadrenocorticism with a low-dose dexamethasone suppression test or ACTH stimulation test if clinical signs (i.e., PU/PD) develop.
- Given the clinical history, consider consultation with a board-certified neurologist.





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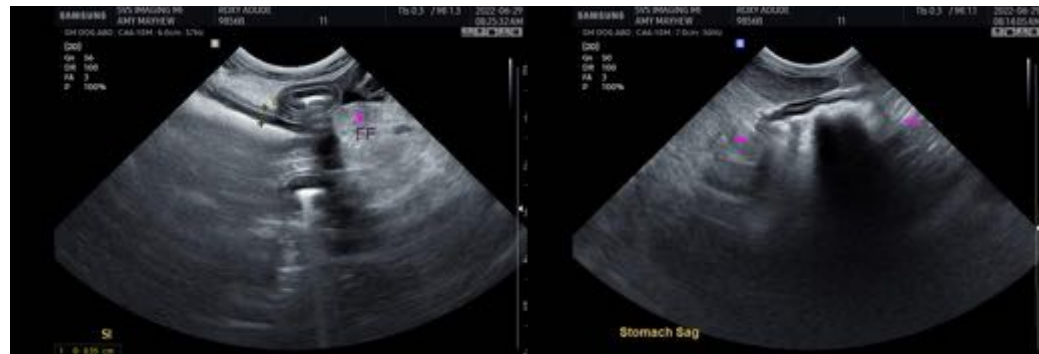
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

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